



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,223	12/21/2001	Sam Young Ahn	8733.523.00	3348
30827	7590	08/10/2005		EXAMINER
				RUDE, TIMOTHY L
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/024,223	AHN, SAM YOUNG 	
<b>Examiner</b>	<b>Art Unit</b>		
Timothy L. Rude	2883		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 02 May 2005.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-8 and 24-34 is/are pending in the application.  
 4a) Of the above claim(s) 33 and 34 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8 and 24-32 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date 20041118.

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.  
 5) Notice of Informal Patent Application (PTO-152)  
 6) Other: \_\_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submissions filed on 09 February 2005 and 02 May 2005 have been entered.

***Claims***

Claims 1 and 24 are amended. Claims 9-23 are canceled. Claims 30-34 are added.

***Claim Objections***

Objection to claim 1 is withdrawn.

***Election/Restrictions***

Newly submitted claims 33 and 34 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Originally presented claims were drawn to a device comprising a first hole in a reflector with no recitation as to any laterally extended portion of said reflector.

Claims 33 and 34 are drawn to a device comprising a first hole in a laterally extended portion of a reflector.

Claims 33 and 34 result in a new species that has no first hole in the non-extended portion of the reflector. In other words, the first hole is effectively relocated from the originally claimed reflector to a newly claimed extended portion of same.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 33 and 34 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 and 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (APA) in view of Furihata USPAT 6,309,081 B1.

As to claims 1, 24, 27, and 28, APA discloses in Figures 1-3 a conventional liquid crystal display module for a notebook computer (specification page 7, [0033]), comprising:

a liquid crystal display panel, 20, in which a liquid crystal is injected between two substrates;

a light guide panel, 4, for converting incident light from a light source to be directed toward the liquid crystal display panel (Applicant's flat type light), wherein the converted light is directed toward said liquid crystal display panel (specification, page 2);

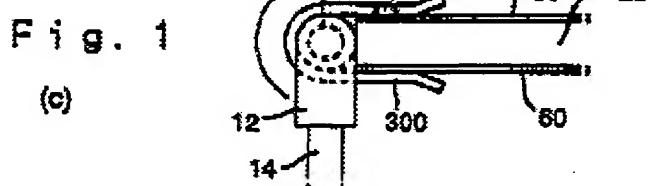
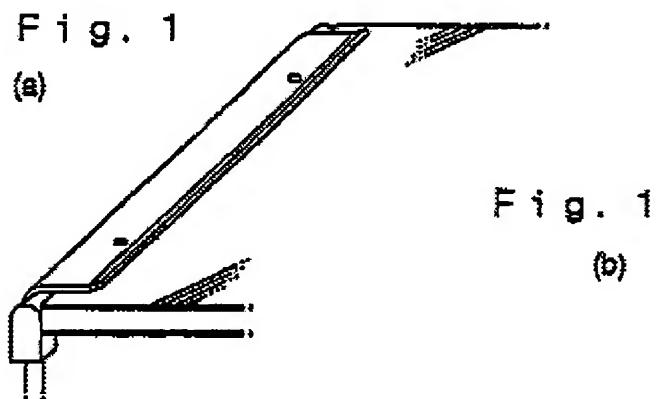
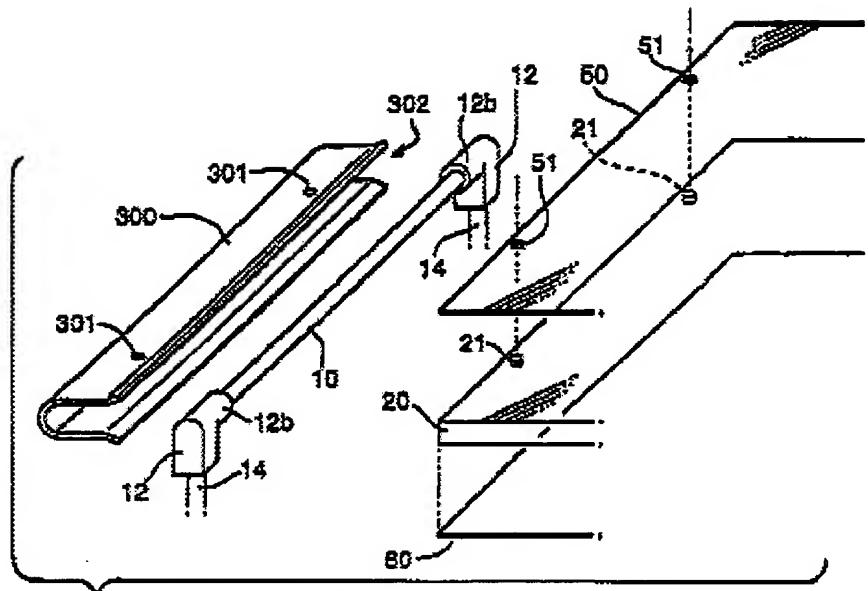
a reflector, 8, for preventing light leakage through a rear surface for the light guide panel (Applicant's wrapping the bottom surface of said light guide panel);

a main support, 6, containing said liquid crystal display panel and said light guide panel.

APA does not explicitly disclose 1) a clamping member fixing said reflector and said main support, and 2) a portion of an upper surface of said reflector is adjacent to a

bottom surface of said light guide panel, and wherein a portion of said upper surface of said reflector is non-adjacent to said bottom surface of said light guide panel.

Furihata teaches 1) a backlight unit in Figure 1 comprising a clamping member, 300, disposed in said reflector, [60 and 300 comprise a two-piece reflector, col. 4, lines 20-32], and adjacent said main support for fixing them (col. 4, lines 62-67), and 2) a portion of an upper surface of said reflector, 60 and 300, is adjacent to a bottom surface of said light guide panel, 20, and wherein a portion of said upper surface of said reflector, 300, is non-adjacent to said bottom surface of said light guide panel, to provide proper assembly without an adhesive (col. 4, lines 59-61).



Furihata is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add 1) a backlight unit comprising a clamping

member disposed in said reflector, and adjacent said main support for fixing them, and wherein 2) a portion of an upper surface of said reflector is adjacent to a bottom surface of said light guide panel, and wherein a portion of said upper surface of said reflector is non-adjacent to said bottom surface of said light guide panel, to provide proper assembly without an adhesive.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of APA with 1) a backlight unit comprising a clamping member disposed in said reflector, and adjacent said main support for fixing them, and 2) a portion of an upper surface of said reflector is adjacent to a bottom surface of said light guide panel, and wherein a portion of said upper surface of said reflector is non-adjacent to said bottom surface of said light guide panel of Furihata, to provide proper assembly without an adhesive.

Examiner considers the teachings of Furihata to render the claimed invention obvious to those having ordinary skill in the art of liquid crystals at the time the claimed invention was made when combined to modify Applicant's admitted prior art (APA) per the motivation of Furihata (MPEP 2144.01). That is to say, Examiner considers modification of APA (starting with the design of APA) per the teachings of Furihata would result in additional holes, extensions, and protrusions that would read on Applicant's claims as presently broadly written and broadly interpreted.

As to claim 2, Furihata, as combined above, teaches said clamping member includes: a protrusion projected with a fixed height from said main support and a hole,

51 (obvious to use on reflecting plate, col. 4, lines 62-67) which is formed in the reflector and through which said protrusion, 21, of said main support penetrates.

As to claim 3, Furihata, as combined above, teaches a protrusion wherein the surrounding surface serves as a boss (Applicant's includes a boss).

As to claims 4, 5, and 25, APA discloses a liquid crystal display module further comprising:

an optical sheet, 22, between said liquid crystal display panel and said light guide panel for diffusing light that passes through said light guide panel and adjusting a direction of the light (specification page 4, [0009]);

a bottom cover, 2, wrapping a rear surface of said reflector and the side surface and a bottom surface of said main support; and

a top case, 10, wrapping a side surface of said main support and said bottom cover, and wrapping an upper edge of said main support (specification page 2, [0004]).

As to claims 6, 26, and 29, APA in view of Furihata, as combined above, disclose the liquid crystal display module according to claim 4.

APA does not explicitly disclose the main support including a protrusion, wherein said bottom cover includes a hole through which the protrusion of said main support penetrates.

Please note: In considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom (MPEP 2144.01).

Furihata teaches the protrusions and holes may be used to secure the reflector and possibly other devices (col. 4, line 51, through col. 5, line 67).

Furihata is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add a main support including a protrusion, wherein said bottom cover includes a hole through which the protrusion of said main support penetrates to provide proper assembly without an adhesive (col. 4, lines 57-61).

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of APA with a clamping member disposed in said reflector and adjacent said main support for fixing them of Furihata to provide proper assembly without an adhesive.

As to claim 7, Furihata, as combined above, teaches a protrusion wherein the surrounding surface serves as a boss (Applicant's includes a boss).

As to claim 8, APA discloses said main support includes a groove (Applicant's guide surface) engaged with a part of the reflector (Figure 3, specification page 4, [0014]) (Applicant's for fixing said reflector in the horizontal direction).

As to claims 30-32, APA in view of Furihata, as combined above, disclose the liquid crystal display module according to claims 6, 26, and 29, respectively.

APA does not explicitly disclose the main support including a protrusion, wherein the height of the protrusion is not greater than the sum of a thickness of the reflector and a thickness of the bottom cover.

Please note: In considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom (MPEP 2144.01).

Furihata teaches the protrusions that are not greater than the sum of a thickness of the items that the protrusion penetrates [as illustrated in figures 1(a) and 1(c)] and holes may be used to secure the reflector and possibly other devices (col. 4, line 51, through col. 5, line 67).

Furihata is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add a protrusion, wherein the height of the protrusion is not greater than the sum of a thickness of the reflector and a thickness of the bottom cover to provide proper assembly without an adhesive (col. 4, lines 57-61).

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD of APA with a protrusion wherein the height of the protrusion is not greater than the sum of a thickness of the reflector and a thickness of the bottom cover of Furihata to provide proper assembly without an adhesive.

***Response to Arguments***

Applicant's arguments filed on 02 May 2005 have been fully considered but they are not persuasive.

**Applicant's ONLY arguments are as follows:**

- (1) Regarding MPEP 707.07(f)
- (2) Regarding no objective rationale to modify the related are using Furihata.
- (3) Regarding hindsight.
- (4) Regarding expected benefit.
- (5) Regarding obviousness of every element recited in claims 24 and 28.
- (6) Dependent claims are allowable because they directly or indirectly depend

from an allowable base claim.

**Examiner's responses to Applicant's ONLY arguments are as follows:**

(1) It is respectfully pointed out that 707.07(f) pertains to an office action as opposed to an advisory action. Advisory actions address any possible errors in the Final Rejection and any amendment known to place the Application in condition for allowance. Prosecution is otherwise closed after final, ergo new arguments as to merits are considered untimely (*after* final).

(2) It is respectfully pointed out that APA indicates a problem with the movement of the reflector causing light leaks (improper assembly). Furihata teaches a method of achieving proper assembly (satisfactory assembly, ergo no light leaks) by way of using

projections in holes held by clamping force as opposed to a less desirable adhesive method. APA clearly discloses a deficiency that one of ordinary skill would clearly see to be adequately addressed by the teachings of Furihata wherein the reflector is held in position by the projections in holes, thereby preventing the reflector movement and resulting light leaks of APA.

It is respectfully pointed out that APA in view of Furihata teaches a portion of an upper surface of said reflector is adjacent to a bottom surface of said light guide panel, and wherein a portion of said upper surface of said reflector is non-adjacent to said bottom surface of said light guide panel, per rejections above.

Applicant has not argued rejection rationale of the dependent claims; Applicant has thereby acquiesced.

(3) It is respectfully pointed out that the motivation of Furihata is considered to addresses the deficiency of APA and does not depend upon any improper hindsight.

(4) It is respectfully pointed out that the benefit of the clamping of a reflector onto a projection to achieve a satisfactory assembly without unwanted adhesive is considered a concept that would be apparent to one of ordinary skill in the art, and would be seen by one of ordinary skill in the art as applicable to improving the moving, light leaking, and poor yield reflector of APA.

(5) It is respectfully pointed out that in considering the disclosure of a reference, it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom [2144.01]. Please note that it is considered very reasonable and even probable that

one of ordinary skill in the art, starting with the device of APA, through routine experimentation, would modify the device of APA to include projections and holes with clamping as needed to comprise any of a number of device configurations that would read on the claims as presently broadly written and broadly interpreted. Please understand this does not mean one of ordinary skill would modify the device of APA in view of Furihata to come up with the exact design as it appears in Applicant's Figures; however, examiner considers the applied prior art robust, with motivation, to lead one of ordinary skill to modify APA with projections, holes, and clamps as needed to avoid the unwanted reflector movement and resulting unwanted light leaks of APA in such a way as to read on the presently elected broadly written and broadly interpreted claims.

(6) It is respectfully pointed out that in so far as Applicant has not argued rejection(s) of the limitations of dependent claim(s), Applicant has acquiesced said rejection(s).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

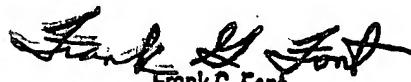
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy L Rude  
Examiner  
Art Unit 2883

tlr

  
Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800